

Claims

1. A potentiometer for providing an output signal indicative of a position of a component, the potentiometer comprising:
  - a body;
  - a member moveable relative to the body and having an end portion for coupling to said component;
  - a resistor mounted to the body;
  - a wiper coupled to the member and forming a slidable electrical contact to the resistor; and
  - contactor means for providing selectable contact positions to said resistor of respective first and second electrical conductors, so as to provide a selected operating section of said resistor.
2. The potentiometer of claim 2, wherein:
  - the potentiometer is a rotary potentiometer for providing an output signal indicative of an angular position of said component;
  - said member is a shaft having an axis, the shaft being rotatable about the axis relative to the body;
  - said resistor is mounted to the body in an arc around the axis; and
  - said contactor means is operative for providing selectable contact positions to said resistor, so as to provide a selected operating angle of said potentiometer.
3. The potentiometer of claim 1 or claim 2, wherein the resistor comprises a resistor coil.

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4. The potentiometer of any one of claims 1 to 3, wherein each contact position is selectable by selection of a conductive contactor from a plurality of conductive contactors such that only the selected contactor contacts the resistor.

5. The potentiometer of claim 4, wherein the conductive contactors comprise contactor fingers, the contact positions being selectable by selection of a finger and positioning of the selected finger into contact with the resistor.

6. The potentiometer of claim 5, wherein the contactor fingers are fingers of a contactor plate, the selected contactor finger being positioned by bending the finger relative to the plate so as to contact the resistor.

7. The potentiometer of claim 5, wherein the contactor finger is selected by bending unselected fingers relative to the plate so that only the selected finger contacts the resistor.

8. The potentiometer of claim 6 or claim 7, wherein the contactor fingers are arranged around the contactor plate to provide a range of selectable operating angles.

9. The potentiometer of any preceding claim, wherein the potentiometer is provided with two contactor plates, one for connection of each of the first and second electrical conductors to the resistor.

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10. The potentiometer of claim 8 or claim 9, wherein the, or each, contactor plate is mountable to the body by press fitting over a resilient protrusion formed on the body.
11. The potentiometer of claim 3, wherein the resistor coil is mounted to the body by means of a mounting ring which clamps the coil between the mounting ring and the body.
12. The potentiometer of claim 11, wherein the clamping ring is mountable to the body by press fitting over a resilient protrusion formed on the body.
13. A rotary transducer for providing an output signal indicative of an angular position of a component, the transducer comprising:
  - a body; and
  - a shaft having an axis, the shaft being rotatable about the axis relative to the body and having an end portion for insertion into an aperture of said component,
    - wherein the end portion has a plurality of segments; the segments being splayed apart from the axis so as to provide a resilient gripping action when inserted into the aperture.
14. The rotary transducer of claim 13, wherein the end portion is an integral part of the shaft.
15. The rotary transducer of claim 13 or claim 14, wherein the segments are provided with a bevelled end face to facilitate insertion into the aperture

by squeezing of the segments toward the axis when the bevelled face is pushed against edges of the aperture.

16. A rotary transducer for providing an output signal indicative of an angular position of a component, the transducer comprising:

a body; and

a shaft having an axis, the shaft being rotatable about the axis relative to the body,

wherein the body comprises an axially centred circular flange for mounting of the transducer by threaded fastening means, the flange having arcuate slots for receiving the fastening means, so as to allow adjustment of the angular position of the transducer,

and wherein mounting inserts are provided surrounding each arcuate slot, the inserts having a face for abutting a head of a fastener, and being of a material which resists permanent deformation when the fastener is tightened.

17. The rotary transducer of claim 16, wherein the mounting inserts are of a stainless steel or other durable material.

18. A rotary transducer for providing an output signal indicative of an angular position of a component, the transducer comprising:

a moulded plastics body; and

a shaft having an axis, the shaft being rotatable about the axis relative to the body,

wherein the transducer has electrical connections for providing a supply voltage to the transducer and for providing the output signal from the transducer to an instrument panel or controller, the electrical connections

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being provided by way of a multi-core cable permanently moulded into the moulded plastics body.